

Title (en)
MELTING AND CONTROLLING THE FLOW OF MOLTEN METAL BY ELECTROMAGNETIC FORCE UTILIZING MULTIPLE INDUCTION COILS

Title (de)
SCHMELZEN UND KONTROLLIEREN DER STRÖMUNG EINER METALLSCHMELZE DURCH ELEKTROMAGNETISCHE KRAFT MIT MEHREREN INDUKTIONSSPULEN

Title (fr)
SYSTÈME ET PROCÉDÉ DE FUSION ET DE RÉGULATION DE L'ÉCOULEMENT D'UN MÉTAL FONDU PAR UNE FORCE ÉLECTROMAGNÉTIQUE À L'AIDE DE MULTIPLES BOBINES D'INDUCTION

Publication
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Application
EP 19823259 A 20190619

Priority
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• US 2019037974 W 20190619

Abstract (en)
[origin: US2019394838A1] An induction coil assembly associated with controlling the flow of molten material used in casting or deposition of precious and/or non-precious metals on a substrate is disclosed. The assembly comprises one or more induction coils associated with induction melting of electrically conductive material by applying a predetermined current value. The assembly further comprises a crucible comprising the electrically conductive material in which an electromagnetic field is generated therein by the predetermined current value applied to the induction coils. The electromagnetic field associated with the electrically conductive material is modulated; and is used to generate smaller units of the electrically conductive material by interrupting velocity of a flow of the material in order to produce grains or apply layers on the substrate. Corresponding methods are also disclosed.

IPC 8 full level
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Citation (search report)
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• [X] US 2001048017 A1 20011206 - FARNWORTH WARREN M [US]
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Designated contracting state (EPC)
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US 11044790 B2 20210622; **US 2019394838 A1 20191226**; EP 3774120 A1 20210217; EP 3774120 A4 20210825;
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